

9 PUBLIC OUTREACH

Central Valley Water Board staff received information from numerous agencies including USEPA, USGS, USBR, UC Davis, SFEI, SRWP, Delta Tributaries Mercury Council (DTMC) and CALFED and from the public. Staff has solicited and will continue to solicit public participation by:

- Sending notification of availability of the draft TMDL Report to interested parties (e.g., federal, state and local agencies involved in the watershed, NPDES facilities, members of local watershed groups, the DTMC and other interested persons). The draft TMDL report and appendices will be available in PDF format on the Central Valley Water Board website: <http://www.waterboards.ca.gov/centralvalley/programs/tmdl/deltahg.html>. Paper copies of the report will be sent to interested persons upon request.
- Soliciting and reviewing the public's written and verbal comments.
- Holding a CEQA scoping meeting and Board Workshop and organizing public meetings within the Delta watershed to explain the TMDL and Proposed Basin Plan Amendment draft staff report and to receive and respond to comments.
- Continuing to coordinate with and receive input from dischargers, agencies, the DTMC, and interested persons.

Central Valley Water Board staff will consider relevant comments and any additional data in the final version of the TMDL report and the Proposed Basin Plan Amendment staff report for the Delta. Central Valley Water Board staff will solicit written and oral comments from the public on the Proposed Basin Plan Amendment draft staff report and revised TMDL report, prepare responses, and submit the comments and responses to the Central Valley Water Board.

10 REFERENCES

- AFT. 2004. California Region: Great Central Valley. From: Agricultural Land Conservation in the Great Central Valley, Great Valley Center 1998. American Farmland Trust (AFT). Available at: http://www.farmland.org/california/central_valley.htm. Last revised: February 2004. Accessed: February 27, 2004.
- Alpers, C.N., R.C. Antweiler, H.E. Taylor, P.D. Dileanis, and J.L. Domagalski. 2000. *Metals Transport in the Sacramento River, California, 1996-1997, Volume 1: Methods and Data*. U.S. Geological Survey Water-Resources Investigation Report 99-4286. Sacramento, CA.
- Armstrong F. and D. Scott. 1979. Decrease in mercury content of fishes in Ball Lake, Ontario, since imposition of controls on mercury discharge. *Journal of the Fish Research Board of Canada*, 36: 670-672.
- ARB. 2003. Data retrieved from the California Emission Inventory Development and Reporting System (CEIDARS), database year 2002. California Air Resources Board (ARB), Emission Inventory Branch, Sacramento, CA.
- Ayers, R.S. and D.W. Westcot. 1985. *Water Quality for Agriculture*. Rome, Food and Agriculture Organization of the United Nations. Irrigation Drainage Paper No. 29, Rev. 1.
- Beard, R.R. 1987. *Treating Gold Ores by Amalgamation*. Arizona Department of Mines and Mineral Resources Circular No. 27, March 1987. Text of a presentation given at an Ehrenberg Arizona Miner's Seminar.
- Becker, D.S. and G.N. Bigham. 1995. Distribution of mercury in the aquatic food web of Onondaga Lake, New York. *Water, Air, and Soil Pollution*, 80: 563-571.
- Benoit, J.M., C.C. Gilmour, A. Heyes, R.P. Mason and C. L. Miller. 2003. Geochemical and biological controls over methylmercury production and degradation in aquatic ecosystems. *In: Biogeochemistry of Environmentally Important Trace Elements*, ACS Symposium Series #835. Y. Chai and O.C. Braids (editors). Washington, D.C.: American Chemical Society, pp.262-297.
- Benoit, J.M., C.C. Gilmour, and R. Mason. 2001. The influence of sulfide on solid-phase mercury bioavailability for methylation by pure cultures of *Desulfobulbus propionicus* (lpr3). *Environmental Science & Technology*, 35: 127-132.
- Benoit, J.M., C.C. Gilmour, R. Mason, A. Heyes. 1999. Sulfide controls on mercury speciation and bioavailability to methylating bacteria in sediment and pore waters. *Environmental Science & Technology*, 33: 951-957.
- Benoit, J.M., C.C. Gilmour, R.P. Mason, G.S. Riedel, and G.F. Riedel. 1998. Behavior of mercury in the Patuxent River Estuary. *Biogeochemistry*, 40: 249-265.
- Benoit, J.M., R.P. Mason, and C.C. Gilmour. 1999. Estimation of mercury-sulfide speciation and bioavailability in sediment pore waters using octanol-water partitioning and implications for availability to methylating bacteria. *Environ. Toxicol. Chem.*, 18: 2138-2141.
- Bloom, N.S. 2003. *Solid Phase Mercury Speciation and Incubation Studies in or Related to Mine-site Runoff in the Cache Creek Watershed (CA)*. Final report submitted to the CALFED Bay-Delta Program for the project: An Assessment of the Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed (Task 7C). Frontier Geosciences Inc. Available at: <http://loer.tamug.tamu.edu/calfed/FinalReports.htm>.

- Bloom, N.S., G.A. Gill, S. Cappellino, C. Dobbs, L. McShea, C. Driscoll, R. Mason and J. Rudd. 1999. An investigation regarding the speciation and cycling of mercury in Lavaca Bay, Texas, sediments. *Environmental Science & Technology*, 33: 7-13.
- Bodaly, R.A., J.W.M. Rudd, and R.J. Flett. 1998. Effect of urban sewage treatment on total and methyl mercury concentrations in effluent. *Biogeochemistry*, 40: 279-291.
- Bodaly, R.A., V.L. St. Louis, M.J. Paterson, R.J.P. Fudge, B.D. Hall, D.M. Rosenberg, and J.W.M. Rudd. 1997. Bioaccumulation of mercury in the aquatic food chain in newly flooded areas. In: *Metal Ions in Biological Systems, Vol. 34: Mercury and Its Effects on Environment and Biology*. A. Sigel and H. Sigel (editors). New York: Marcel Dekker, pp. 259-287.
- Bradford, G.R., A.C. Chang, A.L. Page, D. Bakhtar1, J.A. Frampton, and H. Wright. 1996. *Background Concentrations of Trace and Major Elements in California Soils*. Kearney Foundation Special Report. Kearney Foundation of Soil Science, Division of Agriculture and Natural Resources, University of California. March 1996. Table 1 A (Series and Location of Benchmark Soils) and Table 2 (Total Concentrations of Elements in Benchmark Soils).
- Brekke, L.D., N.L. Miller, K.E. Bashford, N.W.T. Quinn, and J.A. Dracup. 2004. Climate Change Impacts Uncertainty for Water Resources in the San Joaquin River Basin, California. *Journal of the American Water Resources Association*, 40 (1): 149-164.
- Brodberg, R. and S. Klasing. 2003. *Evaluation of Potential Health Effects of Eating Fish From Black Butte Reservoir (Glenn and Tehama Counties): Guidelines for Sport Fish Consumption*. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Pesticide and Environmental Toxicology Section. Oakland, CA. December 2003. Guidelines for Sport Fish Consumption. Available at: <http://www.oehha.ca.gov/fish/pdf/BlackButteDec03final.pdf>. Accessed: 19 August 2005.
- Brumbaugh, W.G., D.P. Krabbenhoft, D.R. Helsel, J.G. Wiener, and K.R. Echols. 2001. *A National Pilot Study of Mercury Contamination of Aquatic Ecosystems Along Multiple Gradients: Bioaccumulation in Fish*. U.S. Geological Survey Biological Science Report 2001-0009. September 2001.
- Byington, A., K. Coale, G. Gill, and K. Choe. 2005. *Photo-degradation of Methyl Mercury (MMHg) in the Sacramento – San Joaquin Delta: A Major Sink*. Poster Presentation, Celebrating Science Stewardship, State of the San Francisco Estuary Conference, 7th Biennial, October 4-6, 2005, Oakland, CA.
- CALFED Bay-Delta Program. 2000a. *Ecosystem Restoration Program Plan, Volume II: Ecological Management Zone Visions*. Final Programmatic EIS/EIR Technical Appendix. July 2000. Available at: http://calwater.ca.gov/CALFEDDocuments/Final_EIS_EIR.shtml.
- CALFED Bay-Delta Program. 2000b. *Implementation Plan*. Final Programmatic EIS/EIR Technical Appendix. July 2000. Available at: http://calwater.ca.gov/CALFEDDocuments/Final_EIS_EIR.shtml.
- CALFED Bay-Delta Program. 2004a. Storage Program. Multi Year Program Plan (Years 5-8). Available at: http://calwater.ca.gov/programplans_2004/storage_program_Plan_7-04.pdf.
- CALFED Bay-Delta Program. 2004b. Conveyance Program. Multi Year Program Plan (Years 5-8). Available at: http://calwater.ca.gov/programplans_2004/conveyance_program_Plan_7-04.pdf.
- Cappiella, K., C. Malzone, R. Smith and B. Jaffe. 2001. *Historical Bathymetric Change in Suisun Bay: 1867-1990*. United States Geological Survey (USGS). Available: <http://sfbay.wr.usgs.gov/access/Bathy/suisunbay/>. Last revised: October 2001.

- CDFG. 2000-2001. *Central Valley Salmon and Steelhead Harvest Monitoring Project*. 1999 & 2000 creel survey data queried from the California Department of Fish & Game (CDFG) creel database.
- CDFG. 2002. *California Wildlife Habitat Relationships System Version 8*. California Department of Fish and Game. Available at: <http://www.dfg.ca.gov/whdab/html/cwhr.html>.
- CDFG. 2005. *A List of California Wildlife Species That May Be at Risk from Consumption of Mercury-Contaminated Fish in Mercury-Impaired Waters in the Central Valley Region*. Report by W. Piekarski, M. Puckett, and M. Stephenson, California Department of Fish and Game Moss Landing Marine Laboratories, Moss Landing, CA, prepared for the Central Valley Regional Water Quality Control Board. May 2005.
- CDHS. 2004. *Research, Outreach, and Education on Fish Contamination in the Sacramento-San Joaquin Delta and Tributaries (AKA Delta Fish Project) Phase I Needs Assessment Final Report*. Prepared by the California Department of Health Services (CDHS), Environmental Health Investigations Branch. Oakland. January 2004.
- CDM. 2004. *Cache Creek Settling Basin Mercury Study: Phase 2 - Sediment Transport Modeling*. Technical Memorandum Prepared for the Central Valley Regional Water Quality Control Board in Cooperation with the U.S. Army Corps of Engineers Sacramento District, the State of California Reclamation Board and the California Bay-Delta Authority. July 2004.
- CDOF. 2004. State of California, Department of Finance, Population Projections by Race/Ethnicity for California and its Counties 2000–2050, Sacramento, California, May 2004. Available at: http://www.dof.ca.gov/HTML/DEMOGRAP/DRU_Publications/Projections/P1.htm. Accessed: 20 May 2004.
- Choe, K.Y. 2002. *Biogeochemistry of monomethyl mercury in San Francisco Bay Estuary*. Texas A&M University, Galveston, Ph.D. dissertation, 195 p.
- Churchill, R. 1999. Insights into California Mercury Production and Mercury Availability for the Gold Mining Industry from the Historical Record. *Geological Society of America Abstracts with Programs*, 31 (6): 45.
- City of Sacramento. 1996. *Mercury Monitoring Plan per Provision 5 of the City of Sacramento's Combined Sewer System's NPDES Permit No. CA0079111*. Letter report submitted to the Central Valley Water Board by the City of Sacramento Department of Utilities with review of mercury monitoring results. May 23, 1996.
- City of San Jose. 2005. *SJ/SC WPCP Mercury Fate and Transport Study Annual Report*. Addendum to the February 2005 Clean Bay Strategy Report, submitted in fulfillment of the San Jose/Santa Clara Water Pollution Control Plant NPDES Permit No. CA0037842, Order No. R2 2003-0085. February 28, 2005. 8 p. Available at: <http://www.sanjoseca.gov/esd/water-pollution-prevention/PDFs/CBS2-05.pdf>. Accessed: 8 July 2005.
- CMP. 2004. Microsoft Access database of Coordinated Monitoring Program water quality data through August 2003. Database and updates provided by Larry Walker Associates (Mike Troughon) and Sacramento Regional County Sanitation District (Steve Nebozuk, CMP Program Manager) to Central Valley Regional Water Quality Control Board (Michelle Wood, Environmental Scientist, Sacramento).
- Compeau, G. and R. Bartha. 1985. Sulfate-reducing bacteria: Principal methylators of mercury in anoxic estuarine sediment. *Applied Environmental Microbiology*, 50: 498-502.
- Conaway, C.H., S. Squire, and R. Mason. 2003. Mercury speciation in the San Francisco Bay Estuary. *Marine Chemistry*, 80: 199-225.

- Cooke, J. and J. Karkoski. 2001. *Clear Lake TMDL for Mercury Numeric Target Report*. Central Valley Regional Water Quality Control Board, Staff Report. Sacramento, CA. June 2001. Available at: <http://www.swrcb.ca.gov/rwqcb5/programs/tmdl/clearlake.html>.
- Cooke, J., C. Foe, A. Stanish and P. Morris. 2004. *Cache Creek, Bear Creek, and Harley Gulch TMDL for Mercury*. Central Valley Regional Water Quality Control Board Staff Report. November 2004.
- Cooke, J., and P. Morris. 2005. *Amendments to The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins for the Control of Mercury in Cache Creek, Bear Creek, Sulphur Creek, and Harley Gulch Staff Report*. Public Review Draft Report. June 2005.
- Cox, P.A. 1989. The Elements: Their Origin, Abundance, and Distribution. Oxford University Press, Oxford. 218 p.
- CVRWQCB. 1998. *The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board - Central Valley Region*. Fourth Edition. Central Valley Regional Water Quality Control Board (CVRWQCB). Sacramento, CA.
- Dansereau, M., N. Lariviere, D. Du Tremblay, and D. Belanger. 1999. Reproductive performance of two generations of female semidomesticated mink fed diets containing organic mercury contaminated freshwater fish. *Archives of Environmental Contamination and Toxicology*, 36: 221-226.
- Davis, J.A., B.K. Greenfield, G. Ichikawa and M. Stephenson. 2003. *Mercury in Sport Fish from the Delta Region*. Final report submitted to the CALFED Bay-Delta Program for the project: An Assessment of the Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed (Task 2A). San Francisco Estuary Institute and Moss Landing Marine Laboratories. Available at: <http://loer.tamug.tamu.edu/calfed/FinalReports.htm>.
- Davis, J.A., M.D. May, G. Ichikawa, and D. Crane. 2000. *Contaminant Concentrations in Fish from the Sacramento-San Joaquin Delta and Lower San Joaquin River – 1998*. San Francisco Estuary Institute report. Richmond, California. September 2000.
- Dolan, D.M., K.P. McGunagle, S. Perry, and E. Voldner. 1993. *Source Investigation for Lake Superior*. Report to the Virtual Elimination Task Force. International Joint Commission. Windsor, Ontario. 50 p.
- Domagalski, J. 2001. Mercury and methylmercury in water and sediment of the Sacramento River Basin, California. *Applied Geochemistry*, 16: 1677-1691.
- DPR. 2002. Pesticide Use Report (PUR) Database. Data available for 1990-2001. California Department of Pesticide Regulation (DPR), Sacramento, CA.
- DWR. 1993-2003. Land Use Data. California Department of Water Resources. Available at: <http://www.landwateruse.water.ca.gov/basicdata/landuse/digitalsurveys.cfm>.
- DWR. 1995. *Sacramento – San Joaquin Delta Atlas*. California Department of Water Resources (DWR), Division of Planning and Local Assistance, Office of Water Education, and DWR Photography. Reprinted July 1995.
- DWR. 2003a. *Sacramento Valley Flood Control System: Estimated Channel Capacity, Reclamation and Levee Districts*. Department of Water Resources (DWR) map of channel capacities and levees maintained by DWR, reclamation, levee, and drainage districts and municipalities. November 2003.
- DWR. 2003b. *Chronological Reconstructed Sacramento and San Joaquin Valley Water Year Hydrologic Classification Indices*. DWR California Cooperative Snow Surveys. Sacramento, CA. Available at: <http://cdec.water.ca.gov/cgi-progs/iodir/WSIHIST>. Last revised: November 25, 2003. Accessed April 19, 2004.

- DWR. 2005. *California Water Plan Update 2005, Volume 3 – Regional Reports: Chapter 12. Sacramento-San Joaquin Delta Region*. California Water Plan Update Bulletin 160-05. Public Review Draft, April 2005. Accessed: <http://www.waterplan.water.ca.gov/>. Date: 9 June 2005.
- Elert, G. (editor). 2002. *Density of Seawater: The Physics Factbook*. Prepared by E. LaValley, and E. Cartagena. Available at: <http://hypertextbook.com/facts/2002/EdwardLaValley.shtml>.
- Emsley, J. 1998. *The Elements*. 3rd Edition. Oxford University Press, Oxford, 300 p.
- Falter, R. and R. Wilken. 1998. Isotopenexperimente zur Ermittlung des abiotischen Quecksilber-Methylierungspotentials eines Rheinsediments. (Isotope experiments for the determination of abiotic mercury methylation potential of a Rhine River sediment.) *Vom Wasser*, 90 (1998): 217-232. Available at: <http://www.geographie.uni-freiburg.de/fb/liste.php?sachgruppe=1468>
- Foe, C.G. 2003. *Mercury Mass Balance for the Freshwater Sacramento-San Joaquin Bay-Delta Estuary*. Final report submitted to the CALFED Bay-Delta Program for the project: An Assessment of the Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed (Task 1A). California Regional Water Quality Control Board, Central Valley Region. Sacramento, CA. Available at: <http://loer.tamug.tamu.edu/calfed/FinalReports.htm>.
- Foe, C.G. and W. Croyle. 1998. *Mercury Concentrations and Loads from the Sacramento River and from Cache Creek to the Sacramento-San Joaquin Delta Estuary*. California Regional Water Quality Control Board, Central Valley Region. Sacramento, CA. Staff report. June 1998.
- Foe, C.G., M. Stephenson, and A. Stanish. 2002. *Pilot Transplant Studies with the Introduced Asiatic Clam, Corbicula fluminea, to Measure Methyl Mercury Accumulation in the Foodweb of the Sacramento-San Joaquin Delta Estuary*. Draft report submitted to the CALFED Bay-Delta Program for the project: An Assessment of the Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed. Central Valley Regional Water Quality Control Board and California Department of Fish and Game. Available at: <http://loer.tamug.tamu.edu/calfed/DraftReports.htm>.
- Foe, C.G., Davis, J., Schwarzbach, M. Stephenson and S. Slotton, 2003. *Conceptual Model and Working Hypotheses of Mercury Bioaccumulation in the Bay-Delta Ecosystem and its Tributaries*. Final report submitted to the CALFED Bay-Delta Program for the project: An Assessment of the Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed. Central Valley Regional Water Quality Control Board, San Francisco Estuary Institute, U.S. Geological Survey, California Department of Fish and Game, and University of California. Available at: <http://loer.tamug.tamu.edu/calfed/FinalReports.htm>.
- Francesconi, K.A., R.C.J. Lenanton, N. Caputi and S. Jones. 1997. Long term study of mercury concentrations in fish following cessation of a mercury-containing discharge. *Marine Env. Res.*, 43: 27-40.
- Gassel, M., S. Klassing, R.K. Brodberg and S. Roberts. 2005. *Fish Consumption Guidelines for Clear Lake, Cache Creek, and Bear Creek (Lake, Yolo, and Colusa Counties)*. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Pesticide and Environmental Toxicology Section. Oakland, CA. January 2005. Available at: http://www.oehha.ca.gov/fish/so_cal/pdf_zip/ClearLake0105.pdf. Accessed: 23 August 2005.
- Gill, G.A., K.Y. Choe, R. Lehman and S. Han. 2003. *Sediment-Water Exchange and Estuarine Mixing Fluxes of Mercury and Monomethyl Mercury in the San Francisco Bay Estuary and Delta*. Final report submitted to the CALFED Bay-Delta Program for the project: An Assessment of the Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed (Task 4B). Laboratory for Oceanographic and Environmental Research, Texas A&M University, Galveston, TX. Available at: <http://loer.tamug.tamu.edu/calfed/FinalReports.htm>.

- Gilmour C.C., E.A. Henry and R. Mitchell. 1992. Sulfate stimulation of mercury methylation in freshwater sediments. *Environmental Science & Technology*, 26: 2281-2285.
- Gilmour C.C., G.S. Riedel, M.C. Ederington, J.T. Bell, J.M. Benoit, G.A. Gill, and M.C. Stordall. 1998. Methylmercury concentrations and production rates across a trophic gradient in the northern Everglades. *Biogeochemistry*, 40: 327-345.
- Hamas, M.J. 1994. Belted kingfisher (*Ceryle alcyon*). In: The Birds of North America, No. 84. A. Poole and F. Gill (editors). Philadelphia: The Academy of Natural Sciences; Washington D.C.: The American Ornithologists' Union.
- Hasting, L. and D. Castleberry. 2003. *An Overview of CALFED Restoration Program Plans for Restoring Delta Flooded Islands*. Abstract in: CALFED Science Conference 2003, January 14-16, 2003, Sacramento California.
- Hatch, J.J. and D.V. Weseloh. 1999. Double-crested Cormorant (*Phalacrocorax auritus*). In: The Birds of North America, No. 441. A. Poole and F. Gill (editors). Philadelphia: The Academy of Natural Sciences; Washington, D.C., The American Ornithologists' Union.
- Harte, J. 1988. Consider a Spherical Cow—A Course in Environmental Problem Solving. University Science Books, Sausalito, California, pp. xi-xiii, 23, and 28 to 31.
- Heim, W.A., K.H. Coale, and M. Stephenson. 2003. *Methyl and Total Mercury Spatial and Temporal Trends in Surficial Sediments of the San Francisco Bay-Delta*. Final report submitted to the CALFED Bay-Delta Program for the project: An Assessment of the Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed (Task 4A). California Department of Fish and Game Moss Landing Marine Laboratory. Available at: <http://loer.tamug.tamu.edu/calfed/FinalReports.htm>.
- Heim, W.A., E.R. Sassone, and K.H. Coale. 2004. Mono-Methylmercury production within the Bay-Delta. Abstract in *Northern California Chapter of the Society of Environmental Toxicology and Chemistry (SETAC), Hot Topics in Environmental Toxicology and Chemistry, 14th Annual Meeting, May 11-12, 2004, Davis, CA*. SETAC Press, pp: 18-19.
- Helsel D.R. and R.M. Hirsch. 2002. Statistical Methods in Water Resources. *Techniques of Water-Resources Investigations of the United States Geological Survey Book 4, Hydrologic Analysis and Interpretation*. September 2002.
- Herbold, B., A.D. Jassby, and P.B. Moyle. 1992. *Status and Trends Report on Aquatic Resources in the San Francisco Estuary*. San Francisco Estuary Project. Oakland, CA.
- Heyvaert, A.C., J.E. Reuter, D.G. Slotton, and C.R. Goldman. Atmospheric Lead and Mercury Deposition at Lake Tahoe. Department of Environmental Science and Policy, Tahoe Research Group, University of California-Davis.
- Hintelmann, H. and R.D. Wilken. 1995. Levels of total and methylmercury compounds in sediments of the polluted Elbe River: Influence of seasonally and spatially varying factors. *Science of the Total Environment*, 166: 1-10.
- Hornberger, M.I., S. Luoma, A. Van Geen, C. Fuller and R. Anima. 1999. Historical trends of metal in the sediment of San Francisco Bay, CA. *Marine Chemistry*, 64: 39-55.
- Hrabik, T.R. and C.J. Watras. 2002. Recent declines in mercury concentration in a freshwater fishery: isolating the effects of de-acidification and decreased atmospheric mercury in Little Rock Lake. *The Science of the Total Environment*, 297: 229-237.
- Huber, K. 1997. *Wisconsin Mercury Sourcebook*. Wisconsin Department of Natural Resources, Bureau of Watershed Management. Madison, WI.

- Hunerlach, M.P., J.J. Rytuba, and C.N. Alpers. 1999. Mercury Contamination from Hydraulic Placer-Gold Mining in the Dutch Flat Mining District, California. United States Geologic Survey (USGS). U.S. Geological Survey Water-Resources Investigations. Report 99-4018B, pp. 179-189
- Hurley, J., J. Benoit, C. Babiarz, M. Shafer, A. Andren, J. Sullivan, R. Hammond, and D. Webb. 1995. Influences of watershed characteristics on mercury levels in Wisconsin rivers. *Environ. Sci. Technol.*, 29, 1867-1875.
- Hurley J., D.P. Krabbenhoft and L. Cleckner. 1998. System controls on the aqueous distribution of mercury in the northern Florida Everglades. *Biogeochemistry*, 40: 293-311.
- Jackman, R.E., W.G. Hunt, J.M. Jenkins and P.J. Detrich. 1999. Prey of nesting bald eagles in Northern California. *J. Raptor Research*, 33:87-96.
- James, L.A. 2004. Decreasing sediment yields in northern California: vestiges of hydraulic gold-mining and reservoir trapping. *Sediment Transfer through the Fluvial System. Proceedings of the Moscow Symposium, August 2004*. IAHS Publishers. 288 p. Available at: <http://www.cla.sc.edu/geog/faculty/james/Research/Pubs/IAHS.James.pdf>
- Jernelöv A, and B. Åsell. 1975. The Feasibility of Restoring Mercury-Contaminated Waters. In: Heavy Metals in the Aquatic Environment: An International Conference. P.A. Krenkel (editor). Oxford: Pergamon Press, Inc. pp. 299-309.
- Johnson, B. and R. Looker. 2004. *Mercury in San Francisco Bay: Total Maximum Daily Load (TMDL) Proposed Basin Plan Amendment and Staff Report*. California Regional Water Quality Control Board, San Francisco Bay Region, Staff Report. April 30, 2004.
- Kelley, C., J. Rudd and M. Holoka. 2003. Effect of pH on mercury uptake by aquatic bacteria: Implications for mercury cycling. *Environ. Sci. Technol.*, 37: 2941-2946.
- King J.K., S.M. Harmon, T.T. Fu and J.B. Gladden. 2002. Mercury removal, methylmercury formation, and sulfate reducing bacteria profiles in wetland mesocosms. *Chemosphere*, 46: 859-870.
- Knowles, N., and D.R. Cayan. 2002. Potential effects of global warming on the Sacramento/San Joaquin watershed and the San Francisco estuary. *Geophysical Research Letters*. 29(18): 38-1 to 38-4.
- Krabbenhoft, D.P. and J.P. Hurley. 1999. The Sun's Detoxifying Effects on Mercury in the Everglades. Abstract in *U.S. Geological Survey Program on the South Florida Ecosystem – Proceedings of South Florida Restoration Science Forum, May 17-19, 1999, Boca Raton, FL*. S. Gerould and A. Higer (compilers). Tallahassee, Florida: U.S. Geological Survey Open-File Report 99-181, pp. 56-57. Available at: <http://sflwww.er.usgs.gov/sfrsf/publications/proceedings/forumproceedings.pdf>
- Krabbenhoft, D.P., M. Olson, J. Dewild, D. Clow, R. Striegl, M. Dornblaser, and P. Vanmetre. 2002. Mercury Loading and Methylmercury Production and Cycling in High-Altitude Lakes from the Western United States. *Water, Air and Soil Pollution: Focus*. 2 (2): 233-249.
- Krabbenhoft D.P., J.G. Wiener, W.G. Brumbaugh, M.L. Olson, J.F. Dewild and T.J. Sabinal. 1999. A National Pilot Study of Mercury Contamination of Aquatic Ecosystems along Multiple Gradients. In: U. S. Geological Survey Toxic Substances Hydrology Program--Proceedings of the Technical Meeting, Charleston, SC, March 8-12, 1999 – Volume 2 of 3 – Contamination of Hydrologic Systems and Related Ecosystems, Water-Resources Investigations Report: 99-4018B. D.W. Morganwalp and H.T. Buxton (editors). West 115 Trenton, N. J.: U. S. Dept. Interior, U. S. Geological Survey; Denver: Branch of Information Services (distributor); pp. 147-160. Available: http://toxics.usgs.gov/pubs/wri99-4018/Volume2/sectionB/2301_Krabbenhoft/pdf/2301_Krabbenhoft.pdf. Accessed: August 24, 2005.

- LWA. 1996. *Sacramento NPDES Stormwater Discharge Characterization Program 1996 DCP Update Report*. Prepared by Larry Walker Associates (LWA). September 1996.
- Lawson, N.M. and R.P. Mason. 2001. Concentration of mercury, methylmercury, cadmium, lead, arsenic, and selenium in the rain and stream water of two contrasting watersheds in western Maryland. *Water Resources*, 35 (17): 4039-4052.
- Leatherbarrow, J.E., L.J. McKee, D.H. Schoellhamer, N.K. Ganju & A.R. Flegal. 2005. *Concentrations and Loads of Organic Contaminants and Mercury Associated with Suspended Sediment Discharged to San Francisco Bay from the Sacramento-San Joaquin River Delta, California*. RMP Technical Report, prepublication manuscript. SFEI Contribution 405. San Francisco Estuary Institute. Oakland, CA. June 2005.
- Lindström, L. 2001. Mercury in Sediment and Fish Communities of Lake Vänern, Sweden: Recovery from Contamination. *Ambio*, 30: 538-544.
- Lindeburg, M.R. 1992. *Civil Engineering Reference Manual*. Sixth Edition. Professional Publications, Inc.: Belmont, CA. Appendix A: Rational Method Runoff Coefficients.
- Linthicum, J. 2003. Personal communications from Janet Linthicum, University of California Santa Cruz Predatory Bird Research Group, to Janis Cooke, Central Valley Regional Water Quality Control Board, regarding nesting sites and prey remains for peregrine falcons in the Cache Creek, Napa valley and Delta areas. April 2003.
- Lodenius, M. 1991. Mercury concentrations in an aquatic ecosystem during 20 years following abatement of the pollution source. *Water, Air, and Soil Pollution*, 56: 323-332.
- LWA. 1997. *Sacramento River Mercury Control Planning Project*. Larry Walker and Associates (LWA). Report prepared for the Sacramento Regional County Sanitation District. Davis, CA. March 1997.
- LWA. 2002. Strategic Plan for the Reduction of Mercury-Related Risk in the Sacramento River Watershed. Appendix 1: Mercury Conceptual Model Report – Mercury Quantities, Fate, Transport, and Uptake in the Sacramento River Watershed. Prepared by Larry Walker Associates (LWA), Davis, California, for Delta Tributaries Mercury Council and Sacramento River Watershed Program. December 2002.
- LWA. 2003. *Sacramento River Watershed Program Annual Monitoring Report: 2001–2002 (Public Draft)*. Larry Walker and Associates (LWA). Davis, CA. April 2003.
- Mallory, M. and K. Metz. 1999. Common merganser (*Mergus merganser*). In: The Birds of North America, No. 442. A. Poole and F. Gill (editors). Philadelphia: The Academy of Natural Sciences; Washington, D.C., The American Ornithologists' Union.
- Marshack, J.B. 2000. *A Compilation of Water Quality Goals*. California Regional Water Quality Control Board, Central Valley Region. Sacramento, CA. Staff report. August 2000, updated February 8, 2001.
- Marvin-DiPasquale, M.M., J. Agee, R.S. Oremland, M. Thomas, D.P. Krabbenhoft and C.G. Gilmour. 2000. Methylmercury Degradation Pathways- A comparison among three mercury impacted ecosystems. *Environmental Science & Technology*, 34: 4908-4916.
- Mason, R.P., N.M. Lawson, and G.R. Sheu. 2000. Annual and seasonal trends in mercury deposition in Maryland. *Atmospheric Environment*, 34: 1691-1701.
- Mason, R.P., N.M. Lawson, and K.A. Sullivan. 1997. The concentration, speciation and sources of mercury in Chesapeake Bay Precipitation. *Atmospheric Environment*, 31 (21): 3541-3550.

- Mason, R.P., W. Fitzgerald and F. Morel. 1994. The biogeochemical cycling of elemental mercury: Anthropogenic influences. *Geochim et Cosmochim. Acta* 58:3191-3198.
- Mason, R.P. and K.A. Sullivan. 1998. Mercury and methylmercury transport through an urban watershed. *Water Research*, 32 (2): 321-330.
- McAlear, J.A. 1996. *Concentrations and fluxes of total mercury and methylmercury within a wastewater treatment plant*. Syracuse, NY: Syracuse University, Masters thesis, 79 p.
- McKee, L., N. Ganju, D. Schoellhamer, J. Davis, D. Yee, J. Leatherbarrow, and R. Hoenicke. 2001. *Estimates of suspended-sediment flux entering San Francisco Bay from the Sacramento and San Joaquin Delta*. San Francisco Estuary Institute (SFEI). Oakland, CA. Staff Report. December 2001.
- McKee, L., and C. Foe. 2002. *Estimation of total mercury fluxes entering San Francisco Bay from the Sacramento and San Joaquin River Watersheds*. San Francisco Estuary Institute (SFEI). Oakland, CA. Memorandum. December 23, 2002.
- Miller, N.L., K.E. Bashford, and E. Strem. 2003. Potential impacts of climate change on California hydrology. *Journal of The American Resources Association*. August 2003: 771-784.
- Miskimmin, B.M., J.W.M. Rudd and C.A. Kelly. 1992. Influences of dissolved organic carbon, pH, and microbial respiration rates on mercury methylation and demethylation in lake water. *Can. J. Fish. Aquat. Sci.*, 49: 17-22.
- Morel, F.M.M., A.M.L. Kraepiel and M. Amyot. 1998. The chemical cycle and bioaccumulation of mercury. *Annual Review of Ecology and Systematics*, 29: 543-66.
- Moyle, P. B. 2002. *Inland Fishes of California*. Revised and Expanded. University of California Press.
- NADP. 2004. National Atmospheric Deposition Program (NRSP-3). NADP Program Office, Illinois State Water Survey, 2204 Griffith Dr., Champaign, IL 61820. Mercury Deposition Network available at: <http://nadp.sws.uiuc.edu/mdn/>.
- NAS. 1973. *A Report of the Committee on Water Quality: Water Quality Criteria, 1972*. U.S. Environmental Protection Agency, National Academy of Science-National Academy of Engineers (NAS). EPA R3-73-033.
- Nguyen, H.L., M. Leermakers, S. Kurunczi, L. Bozo, & W. Baeyens. 2005. Mercury distribution and speciation in Lake Balaton, Hungary. *Science of the Total Environment*, 340: 231-246.
- Nichols, J., S. Bradbury, and J. Swartout. 1999. Derivation of wildlife values for mercury. *Journal of Toxicology and Environmental Health*: 325-355.
- NRC. 2000. *Toxicological Effects of Methylmercury*. National Research Council, Committee on the Toxicological Effects of Methylmercury (NRC). Washington, DC: National Academy Press. Available at: <http://www.nap.edu/books/0309071402/html>.
- OEHHA. 1994. *Health Advisory on Catching and Eating Fish. Interim Sport fish Advisory for San Francisco Bay*. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment. Berkeley, CA. December 1994.
- OEHHA. 1999. *California Sport Fish Consumption Advisories 1999*. Office of Environmental Health Hazard Assessment, California Environmental Protection Agency.
- OEHHA. 2000. *Evaluation of Potential Health Effects of Eating Fish from Black Butte Reservoir (Glenn and Tehama Counties): Guidelines for Sport Fish Consumption*. Draft Report. Pesticide and Environmental Toxicology Section, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. March 2000.

- OEHHA. 2001. *Chemicals in Fish: Consumption of fish and Shellfish in California and the United States*. Final Report. Oakland, CA, Pesticide and Environmental Toxicology Section. Office of Environmental Health Hazard Assessment. California Environmental Protection Agency.
- Paquette, K. and G. Heltz, 1995. Solubility of cinnabar (red HgS) and implications for mercury speciation in sulfidic waters. *Water, Air and Soil Pollution*, 80: 1053-1056.
- Parks, J.W. and A.L. Hamilton. 1987. Accelerating recovery of the mercury-contaminated Wabigoon/English River system. *Hydrobiologia*, 149: 159-188.
- Parsons, T. and M. Takahashi. 1973. *Biological Oceanographic Processes*. New York: Pergamon Press, Inc., 186 p.
- Quemerais, B., D. Cossa, R. Rondeau, T. Phum, P. Gangon and B. Fortin. 1999. Sources and fluxes of mercury in the St. Lawrence River. *Environmental Science & Technology*, 33: 840-849.
- Ravichandran, M., G.R. Aiken, J.N. Ryan and M.R. Reddy. 1998. Enhanced Dissolution of Cinnabar (mercuric sulfide) by Dissolved Organic Matter Isolated from the Florida Everglades. *Environmental Science & Technology*, 32: 33305-3311.
- Reed, D.J. 2002. Understanding tidal marsh sedimentation in the Sacramento-San Joaquin Delta, California. *Journal of Coastal Research*, Special Issue, 36: 605-611.
- Reed, D.J. 2004. Controls on marsh vertical development at BREACH sites: sediments, vegetation and location. Poster presentation in the 3rd biennial CALFED Bay-Delta Program Science Conference, Sacramento, CA. October 2004.
- Regnell, O. and G. Ewald. 1997. Factors Controlling Temporal Variation in Methyl Mercury Levels in sediment and water in a seasonally stratified lake. *Limnol. Oceanogr.*, 42(8): 1784-179.
- Regnell, O., T. Hammar, A. Helg  e and B. Trodeson. 2001. Effects of anoxia and sulfide on concentrations of total and methylmercury in sediment and water in two Hg-polluted lakes. *Can. J. Fish. Aquat. Sci.*, 58: 506-517.
- Regnell, O., A. Tunlid, G. Ewald and O. Sangfors. 1996. Methyl mercury production in freshwater microcosms affected by dissolved oxygen levels: role of cobalamin and microbial community composition. *Can. J. Fish. Aquat. Sci.*, 53: 1535-1545.
- Rudd, J.W.M., M.A. Turner, A. Furutani, A.L. Swick and B.E. Townsend. 1983. The English-Wabigoon River system: I. A synthesis of recent research with a view towards mercury amelioration. *Can. J. Fish. Aquat. Sci.*, 40: 2206-2217.
- Russell, D., USFWS, personal communication to J. Cooke, April 2003.
- Sassone, E.R., W.A. Heim, A. Byington, M. Stephenson, and K.H. Coale. 2004. *Methylmercury export from two experimental ponds on Twitchell Island, California*. Poster Presentation, Northern California Chapter of the Society of Environmental Toxicology and Chemistry (SETAC), Hot Topics in Environmental Toxicology and Chemistry, 14th Annual Meeting, May 11-12, 2004. Davis, CA
- Schaffter, R.G. 1998. Growth of largemouth bass in the Sacramento-San Joaquin Delta. *IEP (Interagency Ecological Program) Newsletter*, 11(3): 27-30.
- Schoellhamer, D.H. 1996. Time series of trace element concentrations calculated from time series of suspended solid concentrations and RMP water samples. U.S. Geological Survey, Sacramento. A special study of the San Francisco Estuary Regional Monitoring Program, San Francisco Estuary Institute. September 1996. Available at: <http://www.sfei.org/sfeireports.htm>.

- Schroyer, T. 2003. Meeting with Tom Schroyer (Fisheries Biologist, California Department of Fish and Game, Bay-Delta Division), Janis Cooke (Environmental Scientist, CVRWQCB, Mercury TMDL Unit), and Michelle Wood (Environmental Scientist, CVRWQCB, Mercury TMDL Unit), on 29 April 2003 regarding delta creel surveys and observations of humans' fishing patterns on main and small channels throughout Delta region.
- Schwarzbach. 2003. Personal communication from S. Schwarzbach, U.S. Geological Survey, to J. Cooke, CVRWQCB, regarding presence of clapper rails and brown pelicans as occasional visitors to the Sacramento-San Joaquin River Delta. April 2003.
- Schwarzbach, S., L. Thompson and T. Adelsbach. 2001. *An Investigation of Mercury Bioaccumulation in the Upper Cache Creek Watershed, 1997-1998*. USFWS Final Report. U.S. Fish and Wildlife Service, Environmental Contaminants Division, Sacramento Fish and Wildlife Office. Off Refuge Investigations Report FFS #1130 1F22. DEC ID #199710005. July 2001.
- Sellers, C., and C.A. Kelly. 2001. Fluxes of methylmercury to the water column of a drainage lake: The relative importance of internal and external sources. *Limnology and Oceanography*. 46: 623-631.
- Sellers, C., C.A. Kelly, and J.W.M. Rudd. 1996. Photodegradation of methylmercury in lakes. *Nature*, 380: 694-697.
- Service, R.F. 2004. As the West Goes Dry. *Science*. Vol. 303. News Focus.
- SFEI. 2000. *San Francisco Bay Seafood Consumption Study*. Final Report. San Francisco Estuary Institute. Richmond, CA.
- SFEI. 2001. *San Francisco Bay Atmospheric Deposition Pilot Study Part 1: Mercury*. Prepared by the San Francisco Estuary Institute for the San Francisco Estuary Regional Monitoring Program, Oakland, CA. August 2001.
- SFEI. 2005. *A Pilot Program for Monitoring, Stakeholder Involvement, and Risk Communication Relating to Mercury in Fish in the Bay-Delta Watershed*. CalFed Project Ecosystem Restoration Program No. ERP-02D-P67. Partners include San Francisco Estuary Institute (SFEI), University of California, Davis, California Department of Fish and Game, Moss Landing Marine Laboratories, California Department of Health Services, and California Office of Environmental Health Hazard Assessment. Available at: <http://www.sfei.org/cmr/fishmercury/>. Accessed: 23 August 2005.
- Shaffter, R.G. 1998. Growth of largemouth bass in the Sacramento-San Joaquin Delta. *IEP Newsletter*. 11(3): 27-30.
- Shilling, F. 2003. *Background Information for a Central Valley Fish Consumption Study: Geographic Information System and Relational Database for Fish Tissue Mercury and Creel Survey Data*. Prepared for the Delta Tributaries Mercury Council and the Sacramento River Watershed Program. Department of Environmental Science & Policy, University of California, Davis.
- Slotton, D.G., S.M. Ayers, J.E. Reuter, and C.R. Goldman. 1997a. Gold mining impacts on food chain mercury in northwestern Sierra Nevada streams (1997 revision). In: Sacramento River Mercury Control Planning Project. Larry Walker and Associates (editors). Final project report prepared for Sacramento Regional County Sanitation District. Davis, CA. March 1997.
- Slotton, D.G., S.M. Ayers, T.H. Suchanek, R.D. Weyland, A.M. Liston, C. Asher, D.C. Nelson, and B. Johnson. 2002. *The Effects of Wetland Restoration on the Production and Bioaccumulation of Methylmercury in the Sacramento-San Joaquin Delta, California*. Draft final report submitted to the CALFED Bay-Delta Program for the project: An Assessment of the Ecological and Human Health Impacts of Mercury in the Bay-Delta Watershed. University of California, Davis, Dept. of Environmental Science and Policy, Dept. of Wildlife, Fish & Conservation Biology, and Division of

Microbiology; U.S. Fish and Wildlife Service, Division of Environmental Contaminants.
Available at: <http://loer.tamug.tamu.edu/calfed/DraftReports.htm>.

- Snedecor, G.W. 1946. Statistical Methods. 4th Edition. The Iowa State College Press, Ames, Iowa.
- Sommer, T.R., W.C. Harrell, A.M. Solger, B. Tom, and W. Kimmerer. 2003. Effects of flow variation on channel and floodplain biota and habitats for the Sacramento River, California, USA. *Aquatic Conservation: Marine and Freshwater Ecosystems*. 14:247-261 (2004).
- Southworth, G.R., R.R. Turner, M.J. Peterson, M.A. Bogle and M.G. Ryon. 2000. Response of mercury contamination in fish to decreased aqueous concentrations and loading of inorganic mercury in a small stream. *Environmental Monitoring and Assessment*, 63: 481-494.
- SRWP. 2004. Microsoft Access database that compiles Sacramento River Watershed water quality data collected for the Sacramento River Watershed Program. Database provided by Larry Walker Associates (Claus Suverkropp) to Central Valley Regional Water Quality Control Board (Michelle Wood, Environmental Scientist, Sacramento).
- St. Louis, V., J. Rudd, C. Kelly, K. Beaty, N. Bloom, and R. Flett. 1994. Importance of wetlands as sources of methyl mercury to boreal forest ecosystems. *Can. J. Fish. Aquat. Sci.*, 51, 1064-1076.
- St. Louis, V., J. Rudd, C. Kelly, K. Beaty, R. Flett, and N. Roulet. 1996. Production and loss of methylmercury and loss of total mercury from boreal forest catchments containing different types of wetlands. *Environ. Sci. Technol.*, 30, 2719-2729.
- Stephenson, M., B. Sohst, and S. Mundell. 2002. *Mercury Langrangian Study Between Colusa and Hamilton City*. Draft final report prepared for the Sacramento Regional County Sanitation District. Marine Pollution Studies Labs, California Department of Fish and Game, and Moss Landing Marine Labs. January 2002.
- Stewart, I.T., D.R. Cayan, and M.D. Dettinger. 2004. Changes in Snowmelt Runoff Timing in Western North America Under a 'Business as Usual' Climate Change Scenario. *Climatic Change*, 62: 217-232, 2004.
- Storer, R.W., and G.L. Nuechterlein. 1992. Western Grebe & Clark's Grebe. *The Birds of North America*. 26: 1-15
- Stratton, J.W., D.F. Smith, A.M. Fan, and S.A. Book. 1987. *Methyl Mercury in Northern Coastal Mountain Lakes: Guidelines for Sport Fish Consumption for Clear Lake (Lake County), Lake Berryessa (Napa County), and Lake Herman (Solano County)*. State of California Department of Health Services, Hazard Evaluation Section and the Epidemiological Studies and Surveillance Section, Community Toxicology Unit, Office of Environmental Health Hazard Assessment. Berkley, CA. Fish Advisory Report. April 1987. Available at: <http://www.oehha.ca.gov/fish/pdf/CLEARLAKEREPORT.pdf>
- Suits, B. 2000. Delta Island Consumptive Use Model Delta-wide island consumptive use estimates for October 1998 through September 1999. Provided by Bob Suits (Department of Water Resources, suits@water.ca.gov) to Chris Foe (Regional Water Quality Ontrol Board) via email on 7 November 2000.
- Sveinsdottir, A.Y. and R.P. Mason. 2005. Factors controlling mercury and methylmercury concentrations in largemouth bass (*Micropterus salmoides*) and other fish from Maryland reservoirs. *Archives of Environmental Contamination and Toxicology*, 49: 528-545.
- Sweet, C. 2000. Personal communication between Clyde Sweet (National Atmospheric Deposition Program, Associate Coordinator for Toxics) and Janis Cooke regarding use of the Mercury

- Deposition Network data to estimate total atmospheric deposition of mercury to a lake near Covelo, CA. Additional information available at: <http://nadp.sws.uiuc.edu/mdn/>.
- SWRCB. 1995. Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. 95-1WR. Sacramento, California. 45 p.
- SWRCB-DWQ. 1990. *1990 Water Quality Assessment*. April 4, 1990. State Water Resources Control Board, Division of Water Quality (SWRCB-DWQ). Sacramento, California. 89 p.
- SWRCB-DWQ. 2002. Toxic Substances Monitoring Program: Freshwater Bioaccumulation Monitoring Program: Data Base. State Water Resources Control Board, Division of Water Quality. Available at: <http://www.waterboards.ca.gov/programs/smw/index.html>
- SWRCB-DWQ. 2003. *Revision of the Clean Water Act Section 303(d) List of Water Quality Limited Segments, Final Staff Report, Volume I*. State Water Resources Control Board, Division of Water Quality (SWRCB-DWQ). February 2003.
- Takizawa, Y. 2000. Minamata disease in retrospect. *World Resource Review*, 12(2): 211-223.
- Taylor, S.S. 1964. Abundance of chemical elements in the continental crust: a new table. *Geochimica et Cosmochimica Acta*, 28: 1273-1285.
- Tetra Tech, Inc. 2005. *Guadalupe River Watershed Mercury TMDL Project Final Conceptual Model Report*. Prepared by Tetra Tech, Inc., Research & Development, Lafayette, CA. Prepared for San Francisco Bay Regional Water Quality Control Board. 20 May 2005. 160 p.
- Tetra Tech, Inc. 2005. *Sacramento River Flood Control System*. Map prepared by Tetra Tech, Inc., based on November 2003 Department of Water Resources (DWR) maps of levees maintained by DWR, reclamation, levee, and drainage districts and municipalities. Map included in the administrative record for the Sacramento River Watershed Model completed in spring 2005.
- Tsiros, I.X. 1999. A modeling analysis of factors influencing mass balance components of airborne deposited mercury in terrestrial landscapes. *J. Environ. Sci., Health*, A34: 1979-2005.
- Turner, R.R. and G.R. Southworth. 1999. Mercury-contaminated industrial and mining sites in North America: an overview with selected case studies. In: *Mercury Contaminated Sites: Characterization, Risk Assessment, and Remediation*. R. Ebinghaus, R.R. Turner, L.D. de Lacerda, O. Vasiliev and W. Salomons (editors). SpringerVerlag: Heidelberg, pp. 89-108.
- USACE. 2002. "Moisture Content," personal communication from L. Fade, U.S. Army Corps of Engineers (USACE) to G. Collins, San Francisco Bay Regional Water Quality Control Board, October, as cited in Johnson & Looker, 2004.
- USEPA. 1987. Integrated Risk Information System. U.S. Environmental Protection Agency, Office of Research and Development, National Center for Environmental Assessment. Washington, DC. January 31, 1987. (First File-On-Line) Available at: <http://www.epa.gov/iris/subst/0073.htm> . Last revised: July 27, 2001. Accessed: June 27, 2005.
- USEPA. 1993b. Wildlife Exposure Factors Handbook. Washington, DC, US Environmental Protection Agency Office of Science and Technology. EPA/600/R-93/187a.
- USEPA. 1995a. *Great Lakes Water Quality Initiative Technical Support Document for Wildlife Criteria*. U.S. Environmental Protection Agency, Office of Water (USEPA). EPA-820-B-95-009. March 1995.
- USEPA 1995b. Trophic Level and Exposure Analyses for Selected Piscivorous Birds and Mammals, Volume II: Analyses of Species in the Conterminous United States. Washington, DC, Office of Water

- USEPA, 1995c. Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories. Volume 1: Fish Sampling and Analysis. Second Edition. Washington DC, US Environmental Protection Agency, Office of Water, Office of Science and Technology. EPA-823-R-95-007.
- USEPA. 1997a. *Mercury Study Report to Congress Vol. 6: An Ecological Assessment for Anthropogenic Mercury Emissions in the United States*. U.S. Environmental Protection Agency (USEPA), Office of Air Quality Planning & Standards and Office of Research & Development.
- USEPA. 1997b. *Mercury Study Report to Congress Vol. 7: Characterization of Human Health and Wildlife Risks from Mercury Exposure in the United States*. U.S. Environmental Protection Agency (USEPA), Office of Air Quality Planning & Standards and Office of Research & Development.
- USEPA. 1999. *National Recommended Water Quality Criteria – Correction*. U.S. Environmental Protection Agency, Office of Water (USEPA), Washington, D.C. EPA 822-Z-99-001. April 1999. Available at: <http://www.epa.gov/ost/pc/revcom.pdf>.
- USEPA. 2000. *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; Rule*. U.S. Environmental Protection Agency (USEPA). Code of Federal Regulations, Title 40, Part 131, Section 38. In *Federal Register*: May 18, 2000 (Volume 65, No. 97), Rules and Regulations, pp. 31681-31719.
- USEPA. 2001. *Water Quality Criterion for Protection of Human Health: Methylmercury*. U.S. Environmental Protection Agency, Office of Science and Technology (USEPA). EPA-823-R-01-001. January 2001.
- USEPA. 2003. *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health (2000), Technical Support Document Volume 2: Development of National Bioaccumulation Factors*. U.S. Environmental Protection Agency, Office of Science and Technology. EPA-822-R-03-030. December 2003.
- USFDA. 1984. *Shellfish Sanitation Interpretation: Action Levels for Chemical and Poisonous Substances*. U.S. Food and Drug Administration (USFDA), Shellfish Sanitation Branch, Washington, DC. June 1984.
- USFWS. 2002. *Comments on the Clear Lake Total Maximum Daily Load (TMDL) for Mercury – Draft Final Report*. Letter from Michael B. Hoover, Acting Assistant Field Supervisor, U.S. Fish and Wildlife Service (USFWS), to Janis Cooke, Environmental Scientist, Central Valley Regional Water Quality Control Board (FWS/EC-02-026). 8 April 2002.
- USFWS. 2003. *Evaluation of the Clean Water Act Section 304(a) Human Health Criterion for Methylmercury: Protectiveness for Threatened and Endangered Wildlife in California*. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Environmental Contaminants Division. October 2003.
- USFWS. 2004. *Evaluation of Numeric Wildlife Targets for Methylmercury in the Development of Total Maximum Daily Loads for the Cache Creek and Sacramento-San Joaquin Delta Watersheds*. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Environmental Contaminants Division. March 2004.
- USGS. 2003. Microsoft Excel Spreadsheets of unpublished data for Bear River Mercury Cycling Project. Data provided by USGS (Charlie Alpers, Research Chemist) to Central Valley Regional Water Quality Control Board (Michelle Wood, Environmental Scientist, Sacramento).
- Verdon, R., D. Brouard, C. Demers, R. Lalumiere, M. Laperle and R. Schetagne. 1991. Mercury evolution (1978-1988) in fishes of the La Grande Hydroelectric Complex, Quebec, Canada. *Water, Air, and Soil Pollution*, 56: 405-417.

- Wallschläger, D., M.V.M. Desai, M. Spengler and R.D. Wilken. 1998. Mercury speciation in floodplain soils and sediments along a contaminated river transect. *J. Environmental Quality*, 27:1034-1044.
- Weast, R. (editor). 1981. *CRC Handbook of Chemistry and Physics*. Second Edition. Boca Raton, FL: CRC Press, Inc, pp. B-205 and B-206.
- Weir, W.W. 1952. *Soils of San Joaquin County, California*. California Soil Survey, Inventory of Soil Resources. University of California, College of Agriculture, Agricultural Experiment Station, Berkeley 4, California. June 1952.
- Wiener, J.G., C.C. Gilmour and D.P. Krabbenhoft. 2003a. *Mercury Strategy for the Bay-Delta Ecosystem: A Unifying Framework for Science, Adaptive Management, and Ecological Restoration*. Draft Final Report to CALFED for Contract 4600001642 between the Association of Bay Area Governments and the University of Wisconsin-La Crosse, 28 February 2003.
- Wiener, J.G., Krabbenhoft, D.P. Heinz, G.H., and Scheuhammer, A.M. 2003b. Ecotoxicology of Mercury, Chapter 16. *In Handbook of Ecotoxicology*, 2nd Edition. D.J. Hoffman, B.A. Rattner, G.A. Burton, Jr., and J. Cairns, Jr. (editors). Boca Raton, Florida: CRC Press, pp. 409-463.
- Wiener, J.G. and D.J. Spry. 1996. Toxicological Significance of Mercury in Freshwater Fish (Chapter 13). *In: Environmental Contaminants in Wildlife: Interpreting Tissue Concentrations*. SETAC Special Publication. W.N. Beyer, G.H. Heinz and A.W. Redmon-Norwood. Boca Raton: CRC Press, Inc, pp. 297-339.
- Wolfe, M.F., S. Schwarzbach and R.A. Sulaiman. 1998. Effects of mercury on wildlife: A comprehensive review. *Environmental Toxicology and Chemistry*, 17:146-60.
- Wright, S.A. and D.H. Schoellhamer. 2004. Trends in the sediment yield of the Sacramento River, California, 1957-2001. *San Francisco Estuary and Watershed Science* [online serial], May 2004 issue, Article 2. Available at: <http://repositories.cdlib.org/jmie/sfews/vol2/iss2/art2>
- Wright, S.A. and D.H. Schoellhamer. 2005. Estimating sediment budgets at the interface between rivers and estuaries with application to the Sacramento – San Joaquin River Delta. Pre-publication manuscript. May 2005. 53 p.